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ABSTRACT

A study investigating the usefulness of a model of student persistence in external degree programs (developed from the Bean and Metzner 1985 model) is discussed. Sample students aged 23 or older who were matriculated in such a program were used, as it was noted that the attrition rate for nontraditional students is higher than for traditional students. The model contained the following variables in the prediction of persistence: background; environment; academics; psychological outcomes; academic outcomes; and intent to persist. By investigating these variables for students in external degree programs, it is possible to make it more probable that such students will obtain a baccalaureate degree. All students enrolled in the external degree program at Caldwell College, New Jersey were sent a questionnaire measuring several independent variables (academic advisement, faculty interaction, finances, outside encouragement, outside commitment, utility, stress, satisfaction, and intent to persist). Study results attest to the usefulness of the Bean and Metzner model. Results include the following: (1) students presenting previous college credits upon matriculation and those who were encouraged by family, friends, and employers were more likely to persist in their studies; (2) the category of academic variables which included academic advisement and faculty interaction was not statistically significant; and (3) consideration should be given to establishing a policy requiring students who enter the program to have a given number of credits prior to enrolling as an external degree student. Contains 25 references. (SM)

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A KEY TO SURVIVAL: THE RETENTION OF ADULT STUDENTS IN AN EXTERNAL DEGREE PROGRAM

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14th Annual Conference • November 2-5, 1989

Ritz-Carlton, Buckhead • Atlanta, Georgia

A KEY TO SURVIVAL: THE RETENTION OF ADULT STUDENTS IN AN EXTERNAL DEGREE PROGRAM

INTRODUCTION

In the early 1970s, the thrust was to make higher education more democratic by making it available to all who wished to participate in post-secondary education regardless of race, gender, income, or social status. (Astin, 1985) This commitment to an egalitarian philosophy of higher education coupled with the increasing complexity of society caused a rise in the number of adults enrolling in institutions of higher education (Harrington, 1977). These additional students were different from their early counterparts and new educational programs had to be developed to accommodate these students.

There were several factors which called for the acceptance of alternative delivery systems of higher education. Among them were the increasing respectability of off-campus and nonresidential programs; the acceptance of nontraditional programs; the Civil Rights Movement which caused Black students and other minorities to demand, among other things, access to higher education; alternative schools which encouraged unstructured learning, open classrooms, and student selection of their particular educational objectives; student mobility which forced colleges and universities to be more lenient in acceptance of transfer credits; an increased concern for students who were physically unable to attend an institution of higher education for a variety of reasons; the new educational technology

which encouraged the proliferation and acceptance of nontraditional forms of education; and the success of the Open University in Britain (Perlman, 1975).

One of the forms of alternative delivery systems for higher education was the external degree program which was presented as a suggestion by Alan Piper in an address given in October, 1970, to the annual meeting of the College Entrance Examination Board. The external degree was proposed and developed out of concern for a qualified student population who lacked access to post-secondary education (Piper, 1970). This form of an alternative delivery system serves students whose work schedules, family responsibilities, educational background, and personal needs cannot be met by the traditional model of higher education, for it allows those students to complete course work for their degrees without attending classes (Piper, 1970). These students attend seminars which augment the tutorial study format of the semester.

Other factors which have precipitated the founding of external degree programs are the decline in the number of students in the 18 to 23 year old category; the "stop-outs" or students who have for one reason or another discontinued their formal education; the necessity of having a certificate or being credentialed in present day society; the high cost of living which forces many adults to update their skills or retrain themselves for better paying positions; the present tendency for people to change jobs frequently; and the concept of a learning society which advocates that learning is a life-long process (Desmonde, 1978, p.4).

Ten years ago, in 1979, Caldwell College, a small, church-related liberal arts college located in the New York Metropolitan

Area, opted to establish an External Degree Program to ensure the survival of the college while at the same time extending its mission to a new and more diverse adult population. While this program has been successful both qualitatively and quantitatively, it still is necessary for the survival of the college not only to attract new students to this program but also to retain those students presently enrolled.

There have been many graduates of external degree programs (Sullivan, 1983) but there are also many students who do not remain in such programs until graduation (Metzner, 1983; Bean and Metzner, 1985). There is need for research to determine the factors which cause students to remain in external degree programs (Tinto, 1975; 1987; Metzner, 1983; Bean and Metzner, 1985). However this segment of the student population has seldom been approached through the use of a structured and a comprehensive model which categorizes and examines factors pertinent to persistence (Bean and Metzner, 1985) nor has the applicability of existing comprehensive models been tested for their utility in explaining persistence/withdrawal decisions (Bean, 1983; Bean and Metzner, 1985).

This study investigated the usefulness of a model of persistence of students in external degree programs developed from the Bean and Metzner (1985) conceptual model of nontraditional undergraduate student attrition. (Figure 1) It used as its sample students twenty-three years of age or older who were matriculated in such a program.

The model used in this study contained the following variables in the prediction of persistence: background, environmental, academic, psychological outcomes, academic outcomes and intent to

persist. This model is shown in Figure 2.

It is disturbing that, of the 2.8 million students who first entered higher education in 1986, 1.6 million are not expected to receive a degree from the institution at which they initially enrolled. Furthermore 1.2 million of these students will not complete any degree program (Tinto, 1987). The rate of attrition is higher for nontraditional students than for traditional students (Bean and Metzner, 1985). However exact statistics for this population do not exist (Tinto, 1987).

Caldwell College has helped to educate nontraditional students in its external degree program since 1979. There have been many graduates of the program, but the persistence rate is very low. This problem is not unique to Caldwell College; it reflects a general trend (Bean and Metzner, 1985).

The Bean and Metzner (1985) model analyzes the persistence/withdrawal patterns of nontraditional students generally. There has not been a study using a theoretical model to investigate these patterns specifically among nontraditional students in external degree programs. Such research is needed by colleges and universities seeking to understand what causes external degree students to persist or withdraw from these programs.

There is a need for research in the area of persistence/withdrawal decisions among older undergraduate students (Tinto, 1975, 1987; Bean and Metzner, 1985). The need for this research has arisen from the increasingly significant number of older adults who are enrolling in undergraduate programs and from their higher rate of attrition in comparison to traditional students (Metzner, 1983; Bean and Metzner, 1985; Tinto, 1987). Attrition research in external

degree students is one aspect of this broader question of older student attrition.

In conducting research on the persistence/withdrawal behavior of external degree students it is useful to have a theoretical model that has been developed for this segment of the student population (Metzner, 1983; Bean and Metzner, 1985; Broughton, 1986). The value of a theoretical model in the study of attrition is explained by Metzner (1983) who notes that "multivariate, theoretical models of the student attrition process have been developed for guiding the identification of relevant variables and for specifying the relationships among these variables to explain the phenomenon of student attrition." (Metzner, 1983, p.11) Bean also concludes that the benefit of using a theoretical model is that "theory guides research, and prevents the reinvention of the wheel or the analysis of variables which show little potential for explaining the attrition process (Bean, 1981b).

Recent studies that have been conducted on external degree students have focused on such issues as the ability of the adult learner to complete a self-paced individual degree program (Losty and Gardiner, 1978); reasons why adults chose a nontraditional path in order to obtain a baccalaureate degree (Losty and Kreilick, 1982); and of the characteristics of the alumni of an external degree program (Firenze, 1983). The weakness of these studies is that they were not based on a theoretical model but simply investigated demographic characteristics. Much concern has been expressed for lack of research using a theoretical model.

Since the external degree program in higher education is still in the developmental stage, especially those programs implemented in

small liberal arts colleges, research is needed to assure quality development of these programs. In order to accomplish this task it is necessary to understand the relationships which exist among factors impacting on the students in these programs. By investigating background variables, academic variables, academic outcome, psychological outcomes and the intent of students to remain in external degree programs it is possible to plan and to make it more probable that these external degree students will obtain a baccalaureate degree.

CONCEPTUAL MODEL

Spady (1970) and Tinto (1975) both reviewed the extensive literature that existed prior to the 1970s on dropout from higher education. They both concluded that this literature did not satisfactorily explain the nature of the dropout process. There was a lack of "theoretically based multivariate research approaches designed to explain the interrelationships among factors believed to affect the attrition process." (Spady, 1971, p.38) The studies failed to investigate the process of interaction over time which allows distinctions to be made between persisters and attriters (Tinto, 1975).

Tinto developed an explanatory/predictive model of student persistence withdrawal factors (1975) which has been extensively used in empirical studies in higher education. It is based on Durkheim's theory of suicide which stresses the importance of social and intellectual integration into society for the prevention of suicide. By analogy, if students are socially and intellectually integrated into the life of the institution they are less likely to dropout. (Spady, 1971).

Tinto's model stresses the importance of the socialization process of shared values, shared friendships, and informal student/ faculty interaction and is not an appropriate framework in which to to study nontraditional students who "are not greatly influenced by the social environment of the institution." (Bean and Metzner, 1985, p.489)

Bean and Metzner developed a model of nontraditional student attrition (1985) which will serve as a frame of reference for this study. This Conceptual Model on Nontraditional Undergraduate Student Attrition" was proposed in response to the lack of a theoretical model for conducting research studies on the nontraditional student student. (Bean and Metzner, 1985) This paradigm is drawn from previous Bean models, behavioral theories and the literature on traditional students. It differs from previous Bean models in that little emphasis is placed on social integration variables which Bean found to have little effect on persistence/withdrawal decisions of nontraditional students (Bean and Metzner, 1985).

The model demonstrates that dropout decisions will be the result of four sets of variables: background, academic, environmental, and psychological outcomes which influence academic outcome, i.e., GPA and intent to leave. Social process variables are not included in this model since a defining characteristic of the nontraditional student is the lack of social integration to the institution (Bean and Metzner, 1985).

VARIABLE SELECTION

The Bean and Metzner (1985) model of nontraditional student attrition is a sophisticated one designed to be used with all types of

nontraditional students at all types of institutions. Bean hypothesizes in his models relationships between categories of variables, not between particular variables presented in each category (Metzner, 1983). "Variables can be added to or deleted from the model to suit the particular needs of an institution." (Bean, 1982b, p.25) The researcher is encouraged to develop those variables that are germane to the institution to be studied.

The categories used in this research are: background variables academic variables, environmental variables, academic outcome, psychological outcomes, and intent to persist. A comparison of the variables used in the Bean and Metzner model with those used in this study are shown in Figure 3.

Background Variables

Among the background variables included in this study were the number of credits by the students enrolling in this program which has been found an influential factor in the persistence of adult students. Research has shown that the amount of college level credit a student had before entering an external degree program effected the probability of student persistence (Losty and Broderson, 1980). Also investigated in this study was the number of credits taken in the external degree program.

These variables were included to control for the preparation the student has for an external degree program. They replaced Bean and Metzner's (1985) high school performance variable. Background variables contained in the Bean and Metzner model (1985) excluded from this study were enrollment status, as all students are matriculated; residence, since there are no resident students in the program; and age, ethnicity and gender since these variables were

used in Bean's models for statistical control and "cannot be considered causes of attrition in an explanatory model since in and of themselves, they do not cause of explain dropout." (Metzner, 1983, p.83)

Environmental Variables

The environmental variables studied were finances, outside encouragement and outside commitment. The literature suggests that finances are positively related to persistence (Bean and Metzner, 1985, Summerskill, 1962) although it has also been stated that there is a scarcity of evidence to verify this (Tinto, 1987).

Outside encouragement has been found to be instrumental in assuring persistence in higher education (Bean and Metzner, 1985; Tinto, 1975, Spady, 1970). Bean and Metzner (1985) found no codification that looked at spouse encouragement or examined relationships between family responsibilities and withdrawal from college for nontraditional adult students. They also mention that psychological reinforcement by employers may be significant for these students.

Outside commitment which includes hours of employment and family responsibilities that are found in the Bean and Metzner model (1985) is supported in the persistence/withdrawal literature. It has been noted that adults dropout of college because of the time commitment needed to attend classes. Women with family responsibilities are very likely to withdraw from college (Tinto, 1987).

Opportunity to transfer was not included since students enrolling in an external degree program have selected such a program because of its flexibility and the fact that it uniquely meets their

needs.

Academic Variables

In the area of academic variables faculty interaction includes the effects of the variables of study habits and absenteeism found in the Bean and Metzner model (1985) since the students in this program work primarily with faculty members. It has been suggested that informal association between faculty and students may be related to the students GPAs. Other research states that informal faculty contact had little influence on persistence (Bean, 1985). This may not be true at small institutions. The influence of student/faculty contact is not clear and may vary according to institutional type (Bean, 1980). What may be important is the quality of the interactions rather than the frequency.

Academic advisement and student persistence are positively related to persistence. Women who did not persist in their studies did not find their academic advisor helpful (Bean and Crewell). Nontraditional students with lower GPAs rated the importance of academic advisement higher than those students with higher GPAs (Broughton, 1986). Other research has shown equivocal results. (Bean and Metzner, 1985).

Other academic variables excluded were course availability because courses are conducted in a manner similar to tutorials and can be offered on demand; and major certainty since several studies indicate that there is no significant difference between persisters and attriters for this variable (Bean, 1980, Summerskill, 1962).

Academic Outcome

Studies indicate that GPA is the single most important variable

in predicting persistence in college. In regard to nontraditional age women, it has been shown that persistence is much higher for students with a GPA of 2.5 or above (Broughton, 1986).

Bean and Metzner caution that "college grade average may be relatively less predictive for part time and older commuter students than for their more traditional counterparts." (Bean and Metzner, 1985, p.521)

Psychological Outcomes

The psychological outcome variables of utility, stress and satisfaction were included in this study. In a recent review of the literature it was found that these variables increase intent to persist (Bean and Metzner, 1985).

Utility of a college degree for employment purposes and for self-improvement was cited almost equally by adult students as the reason they were pursing a college degree (Sewall, 1984). Women who withdrew from degree programs did so because they did not believe that their education would help them in obtaining employment (Bean and Creswell, 1980). In general students who did not see the utility of their college education for employment opportunities were also likely to withdraw from school (Bean, 1983). It has been noted that the effect of perceiving education to be of a practical value was higher for students with low GPAs (Bean, 1982a).

Stress such as poor health and family problems affected withdrawal from college (Pantages and Creedon, 1978; Summerskill, 1962). Personal stress experienced by older adults stemming from their noncollegiate environment was related to persistence/withdrawal decisions (Bean and Metzner, 1985).

Satisfaction has been investigated by only a few empirical stu-

dies (Bean and Metzner, 1985). It is believed that there is a relationship between students enjoying their role as student and persistence. Low satisfaction was found to be one of the four best predictors of attrition especially among older students (Pantages and Creedon). Bean and Metzner, 1985 suggest this variable be included in studies of nontraditional older students.

Goal commitment was not included because the students are all matriculated and most are employed.

Intent

Several recent empirical studies note that students' intent to leave their collegiate institutions at the end of a current semester is strongly predictive of actual attrition. Bean and Metzner (1985) could not find any studies that investigated the relationship between intent and the persistence of the older adult part time student. This research looks at the association of intent and persistence of the older part time student.

Social Integration

Finally the social integration variable was eliminated as suggested by Bean and Metzner (1985). Research has indicated that this variable is not a major factor in persistence decisions and is "not found to be positively and significantly related to the persistence of nontraditional students." (Bean and and Metzner, 1985, p.520)

METHOD

This study was a test of a model adapted from one originally developed by Bean and Metzner (1985) to study nontraditional student attrition. The study was conducted at a small four year liberal arts college and included only those students matricu-

lated in the external degree program. The focus of the study was on persistence.

In the Spring of 1989 all students enrolled in the External Degree Program at Caldwell College were sent a questionnaire entitled the "Caldwell College External Degree Student Questionnaire". These students are a typical sample of the population of external degree students as described in the literature. The average age of the students was 37; 87% are white; women predominate; the majority are married and have children; are employed in professional, subprofessional and technical jobs; 65% have had previous collegiate experience; and the majority are unable to attend regularly scheduled classes.

The questionnaire measured the following independent variables: academic advisement, faculty interaction, finances, outside encouragement, outside commitment, utility, stress, satisfaction and the intent to persist. The return rate of the questionnaire was 91%. For this particular paper 100 questionnaires were randomly selected in the proportion of returning and nonreturning students. Regression analysis was used to determine the statistically significant variables in the model.

It was expected that students who persist in external degree programs are those who have had previous college credits, both traditional and nontraditional; who are encouraged by their family, friends, and co-workers; who do not experience excessive stress as a result of family obligations; who are fairly certain that they will be able to meet tuition costs; and who are satisfied with faculty members and with their advisor.

RESULTS

Background Variables

In general the students surveyed had taken and an average of 29 credits before enrolling in the External Degree Program at Caldwell College. The average number of Caldwell College credits taken was 28.5.

Using multiple regression to investigate the viability of the categories in the model, it was found that the background variables of previous credits taken and credits taken in the program were statistically significant with previous credits taken having a higher beta weight.

Environmental Variables

In the category of environmental variables finance was not a problem for these students as over 75% of them indicated with certainty that they would be able to pay for their courses for the Spring, 1990 semester. Approximately half of the students receive some funding in the form of scholarships, grants or tuition reimbursement.

These students were encouraged in their pursuit of their education by their spouses, their friends and their employers. To a lesser degree they received support for their education from other students and their co-workers. Of the students responding to the questionnaire 62% were presently married while 38% were not; most were employed with 63% being full time workers; and half of these students still had children living at home.

Of the three environmental variables included in this study finances and outside commitment were significant while outside encouragement was not. However the encouragement of certain people, i.e., brother and sisters, spouses and employers did contribute to

persistence decisions.

Academic Variables

One important concern in the relation of external degree students is their relationship with both faculty members and their advisors since this is the only contact they have with the institution. While over 70% of these students found their advisors were available, approachable, and easy to contact the same was not true of their dealings with the faculty. Although they felt the faculty was approachable they did experience some difficulty in contacting then and in finding them available.

Certain aspects in regard to academic advisement were important to persistence decisions. These were availability and satisfaction with the advisement given. With respect to faculty members the results indicated that it was important for them to be available and approachable. Students returning for the Fall semester were also satisfied with the help they had received from the faculty. Neither academic advisement nor faculty interaction as a whole were found to be statistically significant.

This is surprising since it was hypothesized that these two variables would be key in the persistence decisions of external degree students. Possibly since the students enrolled in this program must be highly motivated and independent it may be that they do not need or rely on their advisors and instructors as do other types of students. Perhaps this is related to the fact that older students are not integrated into the social life of the institution.

Academic Outcome

The GPA of these students ranged from 0.00 to 4.00 with 73% of

the responding students having a grade point average of 3.00 or better. The average GPA was 3.26.

As might be expected the grade point average was very significant in persistence decisions. Interestingly the results indicated that 77% of the students who completed the questionnaire enrolled for the Fall semester and 73% of the students responding to the survey had a cumulative average of 3.00 or better.

Psychological Outcomes

Three variables were considered in the category of psychological variables: utility, stress and satisfaction. As to the usefulness of their degree over 74% felt that it would lead to new employment opportunities while 80% felt that it would help them to advance in their career; allow them to engage in desirable positions of increasing responsibility; and aid in increasing their professional status. The vast majority also believed that it would enhance their ability to develop as a person. These students did not find that their degree would help them to deal more effectively with life.

Although these students found their education took a great deal of their time and energy, they did not find that they felt stress as a result of their family or work obligations. In general over 80% found being a student both enjoyable and pleasant.

The psychological outcome had a low beta weight in comparison to the other categories but was statistically significant. Only two of the variables in this category, satisfaction and utility, were significant. The students who persisted found that their education would be helpful to them in obtaining a new job in their major field, a well-paying job, employment with increasing responsibility, would help them to be more open to life circumstance and most important

would contribute to their personal development.

Although stress taken as a whole was not significant certain aspects of it were: the time and energy for educational pursuits and the obligations to family and work.

Intent

It has been reported in the literature that student intent to leave at the end of a semester is highly predictive of actual attrition. Twenty-three percent of the students who attended Caldwell College during the Spring 1989 semester and returned their questionnaires indicated that they would not return for the Fall 1989 semester which was the same percentage that did not return. 81% of the students surveyed intend to graduate from a college and 32% expect to attend graduate school.

The most significant variables in this category which indicated that the student would persist were the intention to enroll for the Fall semester, to enroll for the Spring semester and to attend graduate school. Although intent is considered very important for for persistence in higher education it was not the highest predictor among the external degree students in this study.

Summary

The categories which were found to be significant predictors for persistence decisions were determined by the standardized regression coefficient or beta which gives a comparison of the relative influence of each independent variable on the dependent variable of persistence. A larger coefficient or beta weight indicates a greater relative effect. In order of relative effect the following categories were statistically significant: academic outcome or GPA,

background variables, intent, environmental variables and psychological outcomes. The category academic variables was not significant.

The variables in the categories which were found to be significant were in order of their relative effect: outside commitment, finances, credits taken in the external degree program, utility, satisfaction and the number of credits taken before entering the program. Those variables that were not significant were: academic advisement, outside encouragement and faculty interaction.

CONCLUSIONS

The purpose of this study was to investigate the usefulness of the Bean and Metzner (1985) Conceptual Model of Nontraditional Undergraduate Student Attrition in examining the persistence decisions of external degree students enrolled in a small church-related college located in Northern New Jersey.

As expected, it was found that students presenting previous college credits upon matriculation and those who were encouraged by their family, friends and employers were more likely to persist in their studies. This was also true of those who believed they would be able to finance their education and who did not experience excessive stress in their family and work obligation. Those students with high GPAs, who intended to enroll in the Fall, who saw value in their education for employment opportunities and for personal development and were satisfied with their role of student also tended to persist.

The most surprising result obtained from the study was that the category of academic variables which included academic advisement and faculty interaction was not statistically significant. It was

believed that one of the factors in persistence decisions of external degree students would be their contact and satisfaction with their advisor and faculty members since this is their only link with the college. Many students commented that in general they were pleased with the faculty's support and help although there were those who felt the faculty was not available enough. It was also mentioned that because of the nature of the course work which is tutorial in form there was not much need for the student to interact with faculty members. More puzzling was the fact that although students have an advisor who assists them in course selection and in providing information concerning general requirements about college policies and graduation requirements many students were unaware that they had an advisor.

The Bean and Metzner (1985) model with its flexibility of variable selection in the six categories of background variables, environmental variables, academic variables, academic outcome or GPA, psychological outcomes and intent proved successful in determining persistence behavior of students enrolled in the External Degree Program at Caldwell College. By using an adaptation of this model it is possible to discern predictor variables for student persistence decisions.

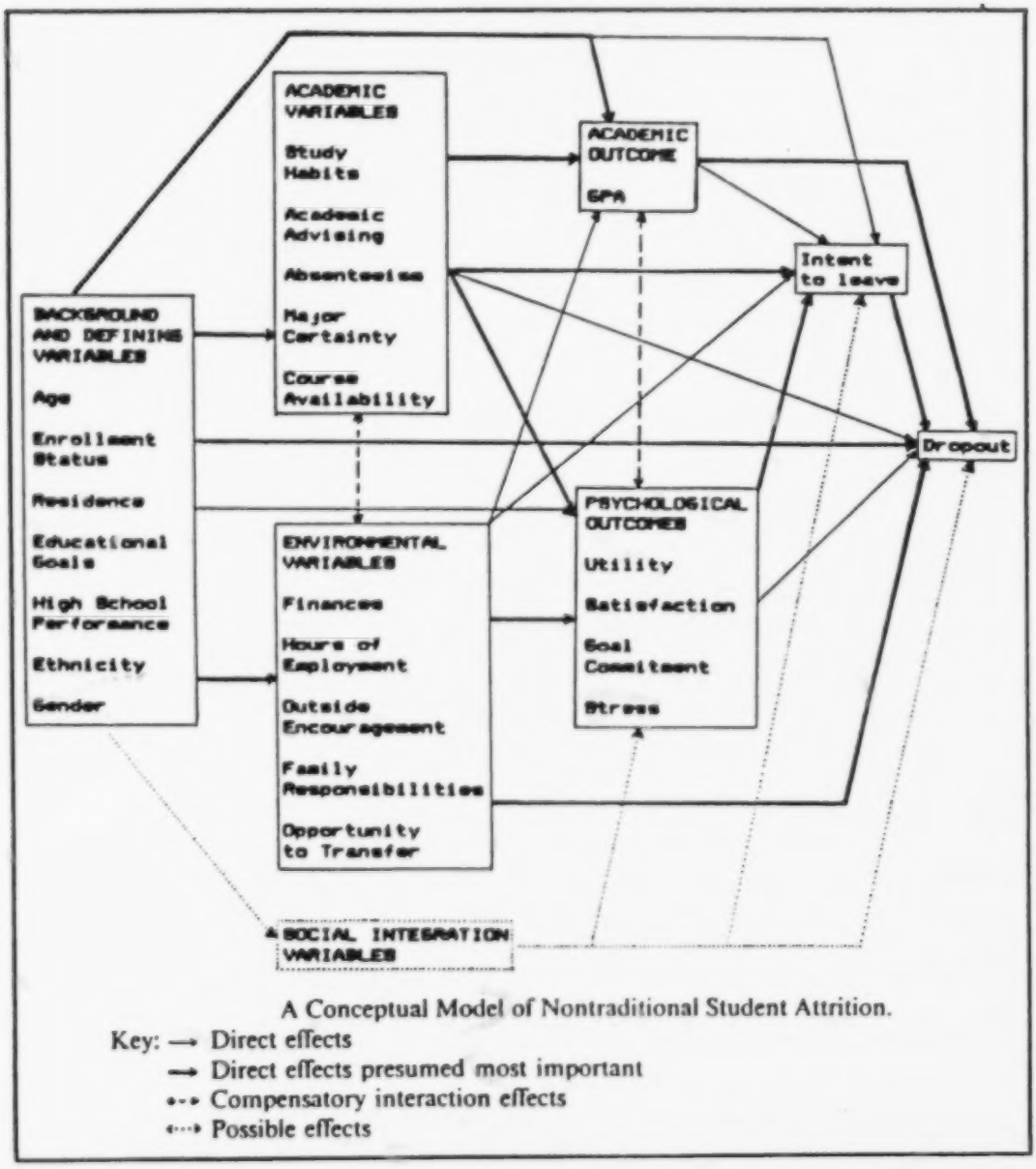
The findings of this research indicate several areas which be considered in order to make the external degree program a more viable education opportunity. First, consideration should be given to establishing a policy requiring students who enter the program to have a given number of credits prior to enrolling as an external degree student. Having had previous college level courses would better prepare these students for the amount study required, proce-

dures necessary for successfully completing college courses and the quality of work demanded. Second, to make academic advisement more significant for students an advisement program might be considered to develop more interaction between the student and to provide students with necessary support and information needed for a better understanding of the program. Third, a mid-semester meeting of students and their professors should be instituted to allow these students to have more contact with the college and the faculty member, to review the course material, to ask questions and exchange ideas with other class members. Finally, a workshop in stress management should be given as part of the orientation weekend each semester to provide students with methods for balancing their family, work and educational responsibilities.

The results of this study attest to the usefulness of the Bean and Metzner (1985) model of nontraditional student attrition for studying external degree programs. It would be helpful to use path analysis as the statistical procedure rather than multiple regression in order to determine the combined, direct and indirect effects of various categories and variables in the model. Different institutions may wish to use different variables in the prescribed categories in order to make it more applicable to their program. Consideration might be given to age differences in persistence decisions and variations that might occur between men and women. The need continues for relevant research in the area of nontraditional students, especially external degree students, research that is based theoretical model specific to their programs so that these programs may be strengthened and improved to better serve this population.

FIGURE 1

BEAN AND METZNER CONCEPTUAL MODEL OF
NONTRADITIONAL STUDENT ATTRITION



A Conceptual Model of Nontraditional Student Attrition.

Key: → Direct effects
→ Direct effects presumed most important
•-• Compensatory interaction effects
•···• Possible effects

Review of Educational Research, Winter, 1985, p.491

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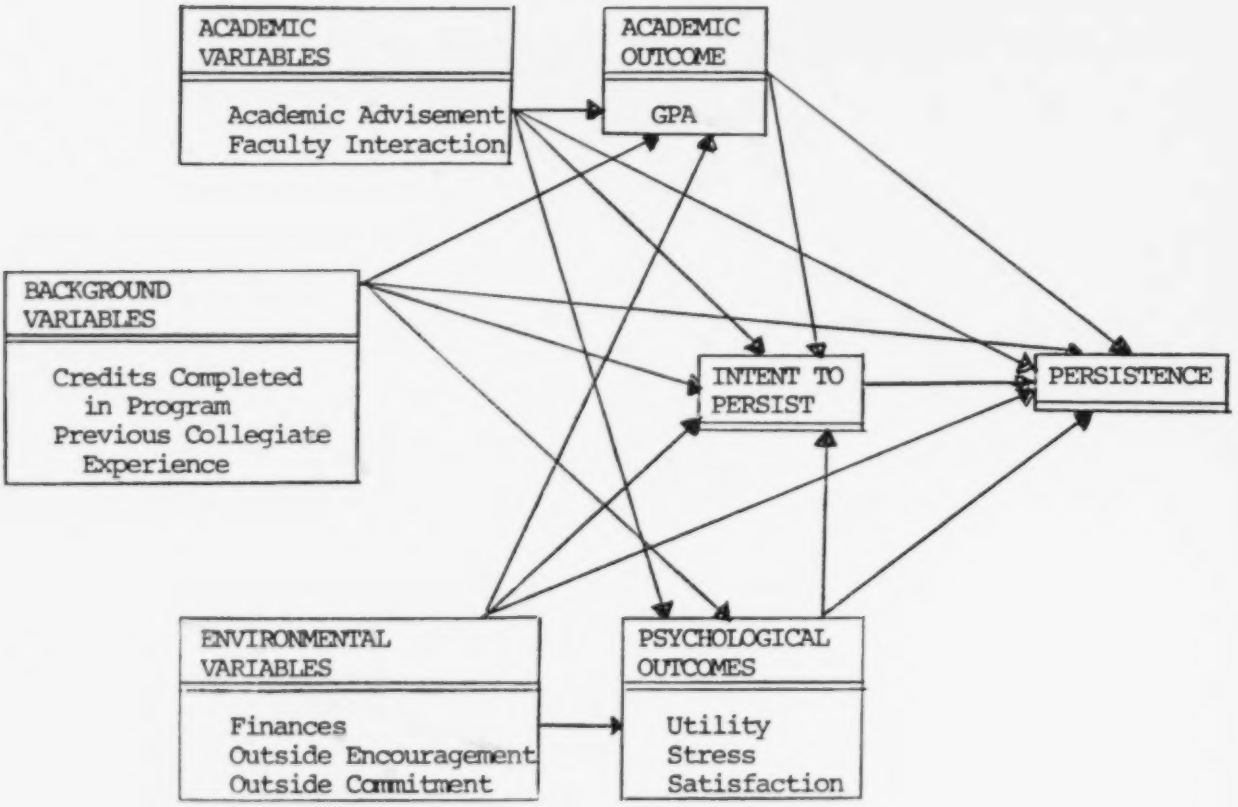
FIGURE 2

A MODEL OF PERSISTENCE OF ADULT STUDENTS
IN AN EXTERNAL DEGREE PROGRAM



KEY: ——→ DIRECT EFFECTS

FIGURE 3

COMPARISON OF VARIABLES IN THE BEAN AND METZNER MODEL WITH THE MC CAFFREY MODEL

VARIABLES IN THE MODELS

	Bean and Metzner	Mc Caffrey
BACKGROUND		
	Age	Credits Completed in Program
	Enrollment Status	Previous Collegiate Experience
	Residence	
	Educational Goals	
	High School Performance	
	Ethnicity	
	Gender	
ACADEMIC VARIABLES		
	Academic Advising	Academic Advisement
	Study Habits	Faculty Interaction
	Absenteeism	
	Major Certainty	
	Course Availability	
ENVIRONMENTAL VARIABLES		
	Finances	Finances
	Hours of Employment	Outside Commitment
	Outside Encouragement	Outside Encouragement
	Family Responsibilities	
	Opportunity to Transfer	
ACADEMIC OUTCOME		
	GPA	GPA
PSYCHOLOGICAL OUTCOMES		
	Utility	Utility
	Stress	Stress
	Goal Commitment	Satisfaction
	Satisfaction	
INTENT TO LEAVE		INTENT TO PERSIST

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